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Relationship between Social Media Exposure and Adolescents' Knowledge, Attitude and Behaviour to HIV/AIDS Prevention

Monica Yusnita¹

Abstrak/Abstract

This study was conducted to determine the relationship between the exposure level to HIV/AIDS information on social media and the knowledge level, attitude and behaviour in preventing the risk of HIV/AIDS transmission among adolescents. The research applied a quantitative approach, survey techniques, descriptive statistical analysis and Partial-least Square Structural Equation Model (SEM) analysis. The samples in this study were 375 Bongas teenagers aged 13-24 years old who accessed the @sobat repro social media account. The results of the study show that most teenagers get high exposure to social media. Bongas teenagers have a good level of knowledge about HIV/AIDS and supportive attitude towards HIV/AIDS prevention. Most of the Bongas youths have positive HIV/AIDS prevention behaviours. Social media exposure has a significant effect on knowledge of HIV/AIDS. However, exposure to social media has no significant effect on attitudes and behaviour to prevent HIV/AIDS. Knowledge has a significant effect on attitudes and behaviour to prevent HIV/AIDS. Attitudes towards HIV/AIDS also have a significant effect on prevention behaviour. Social media exposure has a significant effect on knowledge-mediated prevention behaviour

Penelitian ini dilakukan untuk mengetahui adanya hubungan tingkat paparan informasi HIV/AIDS di sosial media dengan tingkat pengetahuan, sikap dan perilaku dalam pencegahan resiko penularan HIV/AIDS di kalangan remaja. Metode penelitian dilakukan dengan pendekatan kuantitatif, teknik survei, analisis statistik deskriptif dan analisis Partial-least Square Structural Equation Model (SEM). Sampel dalam penelitian ini merupakan 375 remaja Bongas yang berusia 13-24 tahun yang mengakses akun media sosial @sobat repro. Dari hasil penelitian menunjukkan bahwa sebagian besar remaja mendapatkan paparan media sosial yang tinggi. Remaja Bongas memiliki tingkat pengetahuan mengenai HIV/AIDS yang baik. Remaja Bongas memiliki sikap mendukung terhadap pencegahan HIV/AIDS. Sebagian besar remaja Bongas memiliki perilaku pencegahan HIV/AIDS yang positif. Paparan media sosial berpengaruh signifikan terhadap pengetahuan HIV/AIDS. Namun paparan media sosial tidak berpengaruh signifikan terhadap sikap dan perilaku pencegahan HIV/AIDS. Pengetahuan berpengaruh signifikan terhadap sikap dan perilaku pencegahan HIV/AIDS. Sikap mengenai HIV/AIDS juga berpengaruh signifikan terhadap perilaku pencegahan. Paparan media sosial berpengaruh signifikan terhadap perilaku pencegahan yang dimediasi pengetahuan

Kata kunci/Keywords:

Social media exposure; knowledge, attitudes, behaviour, HIV/AIDS; adolescents

Paparan media sosial; pengetahuan, sikap, perilaku, HIV/AIDS; remaja

¹ Postgraduate Programme of Communication Science, Faculty of Social and Political Sciences, University of Indonesia, UI Salemba Campus 16424
E-mail: monicayusnita@gmail.com

Introduction

The phenomenon of HIV/AIDS is one of the serious global health problems in the whole world, including in Indonesia. The development of HIV/AIDS cases in Indonesia, since they have been reported for the first time in 1987, also continues to show a rapid growth. Based on the report of the Directorate General of Disease Prevention and Development (P2P), the number of HIV cases has continued to increase from 2005 until 2019. The number of cumulative HIV cases which was reported until June 2019 was 349,882 (the Ministry of Health of the Republic of Indonesia, 2019). According to the report of the United Nations Program on HIV and AIDS (UNAIDS), the number of new HIV infection cases in Indonesia on women aged 15 years and

above has reached 17,000 in 2017, and 29,000 on men aged 15 years and above (UNAIDS, 2018). Therefore, it can be indicated that adolescents face the periods of vulnerability to suffer from a risk of exposure to new HIV infection cases.

The HIV/AIDS cases among adolescents cannot be separated from the development of globalization which results in the recent social and lifestyle change of the youngsters. They face a period of psychological and sexual development. They also experience physical and emotional changes which are then reflected in their attitudes and behavior. This phenomenon causes the adolescents to become susceptible to have risky behaviors, such as having sexual intercourses with different partners, sex before marriage, and drug abuse. These risky behaviours can endanger their reproductive health, especially the possible transmission of sexually transmitted diseases, including HIV/AIDS (Soetjningsih, 2004).

A directed intervention through education or direct campaign, improvement of adolescents' knowledge and awareness towards HIV/AIDS may also be carried out through an intervention of mass media communication, including the internet. Mass media has a main function to inform, educate, and explain to the public and an effect to trigger someone to take the recommended action (Hamid et al., 2020).

Health researchers and programme practitioners have also made use of social media technology to extensively disseminate information on the HIV prevention, because especially the use and accessibility to the social media has increased. An innovative and progressive prevention initiative is also necessary to advance the HIV prevention initiatives for high-risk groups. It is important for modern researchers to follow younger population who uses social media not only to communicate to each other but also get information related to health (Ariel & Avidar, 2015; Onsomu et al., 2013; Voisin et al., 2013).

Previous studies on social marketing campaigns which apply the social media channel to deliver any information on HIV/AIDS and sexual health promotional message show a quite good result. For example, the Get Yourself Tested (GYT) Campaign benefits from various media (including social network sites) and field initiatives to reach young adults regarding the HIV/AIDS and STIs information. The campaign has successfully reached more than 1500 people through social media intervention and a significant improvement for the HIV and STIs tests were observed following such campaign launching (Friedman et al., 2014).

Social media is useful not only for the HIV/AIDS prevention initiatives. The increased supports provided by the social media have been proven to improve the compliance level to the treatments and accesses to HIV tests and assist to manage stigma enveloping HIV (Strand, 2011;

León et al., 2011; Arscott, 2013). The use of social media among key populations affected by the HIV epidemic effects has increased, including men having sex with men, injection drug users, minority races and ethnicities, and female sex workers (Wohlfeiler et al., 2013; Cubbage, 2014; Tucker et al., 2016; Latkin 2015). Previous researchers also show that high-risk groups use social media to establish social connection, access health information and emotional support, and build attachment with same-age friends (Young et al., 2014; Yonker et al., 2015; Martinez, 2014). Social media activities of these groups may be utilized to facilitate the public participation, which has been identified by the United Nations Program on HIV and AIDS (UNAIDS) sebagai komponen penting dalam upaya pengendalian HIV (Dozier et al., 2011; Ei Chew et al., 2011; Kim et al., 2013; UNAIDS, 2018)

Along with the increased global HIV/AIDS cases, the social media makes it easy to reach communities which are previously difficult to be reached due to limited access in the prevention initiatives of HIV/AIDS transmission. However, there are still a few comprehensive studies on how the social media exposure level affects the knowledge level, attitude and behaviour towards the HIV/AIDS prevention. Researches on the intervention for the HIV/AIDS prevention and behavioural change towards HIV/AIDS generally focus on research objects among high-risk population groups, such as LGBT communities, Female Sex Workers (WPS) or injection drug users. This research was carried out to observe the relationship between the exposure to information on social media and the HIV/AIDS prevention behaviour which focused on adolescents as the research object, because the adolescence groups are also vulnerable to the HIV/AIDS risk.

The research was focused on the adolescence group on Bongas sub-district, Indramayu regency who had severe adolescence reproductive health and HIV/AIDS problems. Bongas sub-district in Indramayu is one of the sub-districts contributing to the high number of HIV patients. According to the data from the Commission for AIDS Prevention (KPA) of Indramayu, the number of cumulative HIV/AIDS cases at the Bongas Sub-district from 2000 to July 2019 was 324 cases. Indramayu Regency is a regency which has the third highest HIV cases in the West Java Province. It had 3,284 patients from 1993 to September 2018, where 1,862 persons suffered from AIDS and 1,422 persons had HIV (KPA, 2019).

Theoretical Review

Hierarchy of Effects Model

According to Egan (2007), the Hierarchy of Effects (HOEM) model is the suitable framework for all communication and advertisement forms (Sinh, 2013; Barry 2002; Belch & Belch 2009). HOEM is often used for the campaign designers in developing a communication strategy. The Hierarchy of Effects explains that individuals re-

ceive a series of effects similar to staircases. This model describes a series of steps to be taken by the potential individual to shift from an initial condition of unawareness to information, product or service which causes a change to behaviour (Belch & Belch, 2009).

The Hierarchical model by McGuire (1989) is one of the models which refers to the hierarchy of effects models. According to McGuire, exposure to information affects a purchase decision (Rodgers dan Thorson, 2000). There are six aspects in this hierarchical model, namely exposure, attention, comprehension, agreement, retention, and purchase intention (McGuire, 1989).

McGuire (1989) explained that message receivers will pay attention to persuasive message when they make and deliver the message. A message containing information presented by the message generator will then be received and comprehended so the message receiver will be affected and sure of the message delivered. Finally, a new perception will be reached and cause an intended behavioural change. Based on this hierarchical model, it can be said that all models focus on steps which the audiences must go through in the behaviour after they are exposed to information and message (UNAIDS, 1999).

This study is supported by the HoE model of the Advertising Research Foundation (ARF) version as applicable in the health communication (Hanan, 2009). The ARF version of the HoE model describes roles of message description, knowledge, attitude, and behaviour (translated as a behaviour or practice) to a behavioural change notion (Barry, 1987). Hanan (2009) discussed the ARF's HoE model which is relevant and applied in the communications on the HIV/AIDS prevention. This HoE model examines an individual's behavioural change in a linear order, which starts from the information exposure (through media) and assumes that its knowledge, positive attitude, and effects will encourage a positive behaviour which supports the HIV/AIDS prevention. The HoE model is integrated to KAB because all KAB variables are variables in the HoE model. In addition to KAB, the HoE model includes the message exposure as the main variable which affects the KAB.

Media Information Exposure and Knowledge-Attitude-Behaviour

A study on the use of media and knowledge on HIV/AIDS by Bekalu dan Eggermont (2013) highlighted a gap in knowledge due to disparity in the use of mass media, and assessed the relationship between the mass media exposure and HIV/AIDS knowledge. This study found that the mass media exposure was not a significant predictor for the HIV/AIDS knowledge. However, at the same time, it also showed that a gap in knowledge among the respondents with high and low education background was inversely proportional to the increase use of media regarding the HIV/AIDS.

Other study by Asamoah et al. (2017) conducted on youngsters in Ghana showed that female young adults with increasing HIV/AIDS knowledge and frequent exposure to the social media tended not to show any stigmatized attitude to HIV patients nor act as a stigma agent. Furthermore, a research by Thanavanh, Harun-Or-Rashid, Kasuya, dan Sakamoto (2013) which was carried out in Laos reported that students who had high exposure to the social media would have medium and high level of knowledge on HIV/AIDS and were more possible to show a good attitude towards HIV patients, and were more inclined to show a safe HIV practice.

In addition, a relevant previous study conducted in China by Li et al. (2009) showed that the media exposure related to the HIV/AIDS had a direct relationship with the knowledge, attitude, and behaviour towards HIV/AIDS, especially attitude stigmatizing the HIV patients. However, at the same time, such study also stated even though there was a theoretical debate on how and why the mass media communication affected the behaviour, there were quite many empirical evidences which showed that the media could be used for any attitude and behavioural changes related to the HIV/AIDS (Li et al., 200).

Knowledge, Attitude, and Behaviour regarding HIV/AIDS

The Knowledge-Attitude-Practice (Schwartz, 1976) shows a linear correlation among knowledge, attitude, and practice which explains that the public attitude is mostly manifested into behaviour or action and the knowledge on a specific behaviour has a risk to assist someone in establishing a positive attitude. Even though there are many methods to study the public health issues, the approach which applies the knowledge, attitude, and practice model looks more interesting for researchers because its ability to open the door to mitigate the health problems (Gumucio, Merica, Luhmann, Fauvel, & Zompi, 2011). The Knowledge-Attitude-Practice model explains that a decision on behavioural change accompanies the cognitive, affective, and psychological factors (Sala-Zapata et al., 2018).

The knowledge, attitude and behaviour on HIV/AIDS serves as a foundation to tackle HIV. Sufficient knowledge on HIV/AIDS is the optimal means to promote positive attitude and involve in a safe practice. Attitude towards HIV/AIDS is expected to determine the public's sexual behaviour. Many prevention programmes focus on the improvement of knowledge on prevention in order to mitigate misconception which may prevent the behavioural changes to safe practices and also stigma decrease against the HIV patients (Dzah et al., 2019).

Even though literatures support a logical and theoretical relationship between the media exposure and HIV/AIDS KAP, and relationship among the HIV/AIDS KAP variables, studies on this area have not been methodologically able

to provide up-to-date conclusions. Therefore, by applying recommendations from Bouanchaud (2011) in order to consider the media exposure and Knowledge-Attitude-Practice construction as a latent variable, this research tested a relationship among this construction in a hypothesized model.

Research Hypotheses

H1: There is a positive relationship between the social media exposure level and HIV/AIDS prevention behaviour among Bongas adolescents.

H2: There is a positive relationship between the social media exposure level and level of knowledge on HIV/AIDS among Bongas adolescents.

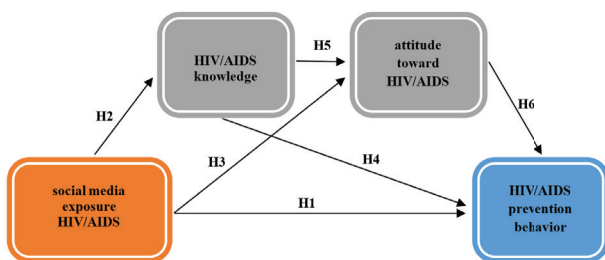
H3: There is a positive relationship between the social media exposure level and attitude towards HIV/AIDS among Bongas adolescents.

H4: There is a positive relationship between the knowledge and HIV/AIDS prevention behaviour among Bongas adolescents.

H5: There is a positive relationship between the knowledge and attitude towards HIV/AIDS among Bongas adolescents.

H6: There is a positive relationship between the attitude and HIV/AIDS prevention behaviour among Bongas adolescents.

Figure 1 Theoretical Framework



Research Methodology

This study applied the quantitative method and the data were collected by survey in which questionnaires were distributed as the research instruments. The research design applied in this research was cross sectional survey which was continued by a comparative analysis among intensity groups internally. This design may only collect data from samples at one time (Creswell, 2012:77).

Research Instruments

Exposure to Information on the Social Media

This study used indicators formulated by Ardianto et al, (2005) for the media exposure variable. There were 12 questions under the indicators of duration, frequency, intensity, and attention which were later adjusted to the HIV/AIDS aspects, such as information on HIV/AIDS symptoms, HIV transmission, and HIV/AIDS prevention. The respondents were asked about

the frequency, duration, intensity and attention while they read information on HIV/AIDS from @sobatrepro account. The respondents' answers were ranked from 1 to 5, where score 1 showed high exposure to information and score 5 showed low exposure to information.

Knowledge on HIV/AIDS

The variable of knowledge on HIV/AIDS used indicators formulated based on the WHO's instruments on Health Behaviour of School Students. There were 15 questions under the indicators of HIV/AIDS basic information, HIV/AIDS transmission, prevention, and therapy (Thomson, 1999). The questionnaire was presented in "True" and "False" statements, where higher scores showed more knowledge and lower score showed lesser knowledge on HIV/AIDS.

Attitude towards HIV/AIDS

A variable of attitude towards HIV/AIDS also applied indicators formulated by Thomson, et al. (1999). There were 15 questions under indicators of HIV/AIDS transmission and prevention, misunderstanding related to HIV/AIDS and stigma against the HIV patients. The measurement used four-point Likert scale which varied from one (strongly disagree) to four (strongly agree).

HIV/AIDS Prevention Behaviour

The variable of HIV/AIDS prevention behaviour used indicators which have been applied in a research by Hamid et al. (2020). There were 10 questions under indicators of abstinence, be faithful, condom using, drug, and equipment/education. The respondents were asked to state Yes or No for statements in two categories of answers, i.e. favourable statement to support the HIV/AIDS prevention and unfavourable statement to not support HIV/AIDS prevention.

Population and Samples

The target population in this research is adolescents living at Bongas sub-district aged 13-24 years who were active in using the social media. Based on the calculation under a statistical formula of Lemeshow (1997), this study needed 325 samples. The sampling of this research was selected by the consecutive sampling method. Consecutive sampling is a sampling by deciding on subjects who comply with the research criteria and are included in the research until a specific timeline, so the number of required respondents may be reached (Nursalam, 2003). The sampling were taken from Google Form answers first submitted and complied with the research criteria until the required number was reached.

Data Analysis Technique

This explanatory research applied two methods to analyse data, i.e. descriptive statistics method by SPSS and Structural Equation Modeling-Partial Least Square (SEM-PLS) method. PLS (Partial Least Square) is applied for multi-

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ple regression analyses and main component for regression because it is considered to be more durable and not easily change (Syahrir et al, 2020). As a analysis method, SEM-PLS is not based on many assumptions, such as normality and multicollinearity tests. The SEM-PLS analysis was used to investigate whether there was a relationship between the social media exposure level and knowledge, attitude, and behaviour on the HIV/AIDS prevention, either directly or indirectly. The tool or software used was SmartPLS. The SmartPLS tool was used to observe a relationship in a more complex model than the pre-determined variables. The SmartPLS also enabled me to observe a relationship between the variables and indicators constructing them (Hair et al., 2014).

Research Results
Descriptive Analysis

In this research, the sex of majority respondents is 53.6% female and the remaining is 46.4% male. In terms of their age, most respondents in this research are 16-18 years old, i.e. 41.3% and followed by 13-15 years old group by 32.3%. Majority respondents by 65.5% hold senior high school/equal diploma and 24.3% hold junior high school/equal diploma.

Table 1 Characteristics of the Respondens

Characteristics of Subjects	Frequency (n=375)	Percentage
Sex		
Male	174	46.4
Female	201	53.6
Age group		
13 – 15	121	32.3
16 – 18	155	41.3
19 – 24	99	26.4
Mean +/- SD of age (years)	17.0	+/- 2.9
Education Background		
Elementary School	22	5.9
Junior High School	91	24.3
Senior High School	246	65.6
College	16	4.2

The analysis on social media use shows that most respondents by 42.1% use social media as their source of information. Almost all respondents (90.4%) pay attention to information disseminated on the social media. 40% respondents spend less than one hour per day in average and 60% respoondents spend more than 1 hour in reading information on the social media. Most respondents by 80.3% pay attention to information on the HIV/AIDS on the social media for the last six months. Almost half of the total respondents, i.e. 41.9%, states that they read two to three

times information on the HIV/AIDS on their social media. Meanwhile, the analysis results for other information sources show that, in addition to the social media, the respondents also get information on the HIV/AIDS from field officers/staff of Kusuma Bongas Foundation (49%), printed/electronic/online media (48%), Peer Educator/Community Adolescence Leader (34%), Teachers (29%), and health professional (18%).

Table 2 Categorizations of the Variable of Social Media Exposure

Social Media Exposure Level	Frequency	Percentage
High	236	62.9
Low	139	37.1
Total	375	100

Based on table 2, it can be found that most respondents by 62.9% have high exposure and 37.1% of the respondents have low exposure. This showed that Bongas adolescents had high social media exposure.

Table 3 Categorizations of the Variable of HIV/AIDS Knowledge

Knowledge Level	Frequency	Percentage
Good	185	49.3
Sufficient	174	46.4
Poor	26	4.3
Total	375	100

Table 3 shows that most respondents by 49.3% have good knowledge level and 46.4% respondents have sufficient knowledge. Therefore, it showed that most adolescents of Bongas had good knowledge on the HIV/AIDS.

Table 4 Categorizations of the Variable of Attitude towards HIV/AIDS

Attitude	Frequency	Percentage
Supportive	216	57.6
Non-Supportive	159	42.4
Total	375	100

Table 4 shows that most respondents by 57.6% have supportive attitude towards the HIV/AIDS prevention and the remaining respondents by 37.1% have non-supportive attitude towards the HIV/AIDS prevention. Thus, it showed that most adolescents of Bongas had supportive attitude towards the HIV/AIDS prevention.

Table 5 Categorizations of the Variable of the HIV/AIDS Prevention Behaviour

Behaviour	Frequency	Percentage
Positive	317	84.5
Negative	58	15.5
Total	375	100

Table 5 shows that out of 375 respondents, 84.5% respondents have positive prevention behaviour and the remaining of 15.5% have negative prevention behaviour. Hence, it showed that the majority of Bongas adolescents had positive HIV/AIDS prevention behaviour.

**Reflective Measurement Model Evaluation (Outer Model)
Convergent Validity**

The convergent validity test was carried out based on the factor loading and average variance extracted values. Based on the factor loading value, an item is said to be valid if the value is higher than 0.70. The AVE Value is said to be good if it is higher than 0.50 (Ghozali & Latan, 2015) and intervariable correlation is smaller than the AVE root. Followings are values of the AVE table.

From the results, several items were obtained from each variable. Such items have a factor loading value more than 0.7 so they can be said as valid. The results show the AVE (Average Variance Extraction) value of the research model for all research variables which have value more than 0.5. Thus, the AVE value for the convergent validity test has passed for the next test. Hence, the convergent validity has been fulfilled.

Discriminant Validity

The second validity test is the discriminant validity test. This test is based on the measurement cross loading value and construct and root value of the Average Variance Extracted (AVE). The Cross Loading factor is used to know whether a latent variable has a sufficient discriminant, i.e. by comparing the correlation between indicators and other latent variables (Ghozali & Latan, 2015). The results of discriminant validity from the cross loading value between indicators and their respective constructs are as the following.

Table 7 Discriminant Validity based on the Cross Loading Value

Item	X1	Y1	Y2	Y3
AT1	0.226	0.596	0.786	0.496
AT2	0.226	0.605	0.806	0.35
AT3	0.191	0.568	0.749	0.496
AT5	0.237	0.591	0.766	0.443
AT6	0.147	0.445	0.712	0.335
AT7	0.153	0.429	0.731	0.229
AT8	0.108	0.499	0.752	0.433
AT9	0.195	0.569	0.802	0.333
AT10	0.105	0.528	0.803	0.376
AT12	0.291	0.592	0.794	0.425
AT13	0.187	0.532	0.770	0.324
AT14	0.181	0.525	0.796	0.313
AT15	0.194	0.476	0.743	0.344
KN2	0.372	0.716	0.493	0.316

Item	X1	Y1	Y2	Y3
KN3	0.274	0.763	0.527	0.466
KN4	0.238	0.810	0.600	0.549
KN5	0.235	0.781	0.529	0.432
KN7	0.339	0.737	0.501	0.255
KN8	0.185	0.788	0.534	0.454
KN9	0.195	0.787	0.543	0.508
KN10	0.174	0.751	0.509	0.455
KN13	0.314	0.716	0.540	0.291
KN14	0.325	0.735	0.514	0.279
KN15	0.366	0.723	0.532	0.273
PM1	0.758	0.313	0.245	0.227
PM2	0.761	0.304	0.199	0.186
PM3	0.753	0.268	0.218	0.179
PM4	0.822	0.296	0.226	0.085
PM5	0.845	0.285	0.167	0.095
PM6	0.841	0.322	0.214	0.148
PM7	0.790	0.223	0.112	0.021
PM8	0.754	0.228	0.116	-0.026
PM9	0.779	0.224	0.135	-0.008
PM10	0.801	0.291	0.194	0.06
PM11	0.791	0.269	0.199	0.023
PM12	0.790	0.304	0.228	0.104
PT1	0.159	0.456	0.429	0.811
PT2	0.114	0.369	0.421	0.750
PT4	0.141	0.428	0.38	0.778
PT6	0.009	0.382	0.369	0.801
PT7	0.052	0.403	0.372	0.825
PT8	0.104	0.395	0.392	0.783
PT9	0.141	0.445	0.388	0.773

The factor loading indicator in the variable construction must be higher than other construction loadings provided that the factor loading cut off value is higher than 0.70 (Hamid et.al, 2017). For example, the results of the discriminant validity test for the system quality role variable show that the construct correlation value to its indicators is higher than the correlation value to other constructs. Therefore, it shows that the latent construct has a good discriminant validity because it can predict indicators for the system quality role variable better than indicators in other blocks.

Composite Reliability

The reliability test is aimed to know how far measurement tools may be relied on or trusted. Based on the PLS method, the reliability of indicators in this research was decided from the composite reliability value which had to be higher than 0.7.

Table 8 Composite Reliability Value

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Variable	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Social Media Exposure	0.946	0.951	0.952	0.626
Knowledge	0.925	0.927	0.936	0.571
Attitude	0.943	0.946	0.950	0.594
Prevention Behaviour	0.899	0.900	0.920	0.623

The composite reliability value of the research model showed that each variable has had the composite reliability value higher than 0.70. Such results showed that the research model had complied with the composite reliability value and this research was said to be reliable.

Inner Model Evaluation

Following the measurement model or outer model evaluation, the next step is a structural model or inner model evaluation. Hair et al. (2011) explained that several measurements should be carried out in the structural model or inner model evaluation, among others, a measurement of determinant coefficient (R²), predictive relevance (Q²), size and significance of the path coefficient, and extent of the f² and q² effects. This measurement is conducted on the new path diagram from the outer model evaluation results.

Determinant Coefficient (R²) Test

The determinant coefficient (R²) measurement is the main measurement in evaluating the structural or inner model. Hair, et al (2011) divided the interpretation of R² results into three parts, namely 0.75 categorized as substantial; 0.50 categorized as moderate; and 0.25 categorized as weak. According to Yahaya, et.al (2019), the inner model evaluation is conducted by observing the Determinant Coefficient. R² is applied to assess goodness of fit in the regression analysis. The R² value explains the power of predictions in the model samples. The structural model test results explained a change in the criteria or endogenous variable due to an effect from the predictor variable at 0.311. It could be interpreted that the

variables of social media exposure, knowledge, and attitude towards HIV may affect the prevention behaviour by 31.1%.

Predictive Relevance (Q²) Test

The predictive relevance (Q²) test in the PLS-SEM was used to validate the model. A small difference between the prediction and original value was translated into a higher Q² value. Hence, it showed a higher accuracy prediction. The Q² value is expected to have a higher value than zero, which shows a structural model predictive accuracy (Yahaya, et.al (2019). Based on the predictive relevance (Q²) calculation result in this research, it showed 0.695. In this research model, the endogenous latent variable had a higher predictive relevance (Q²) than 0 (zero). Hence, the exogenous latent variable was suitable for a clarifying variable which was able to predict its endogenous variable, i.e. performance or on the other words, it proved that this model was assessed to have good predictive relevance.

Test of Hypotheses

The test of hypotheses as shown in Table 9 shows that H1 was proven. The social media exposure did not have a significant effect on the HIV prevention behaviour which was proven by the T-Statistic value of 1.238 and P-Values of 0.216 (significance is higher than 0.05). This implied that the high or low level of the social media exposure did not affect the high or low level of an individual's prevention behaviour against HIV.

The test of hypotheses as shown in table 9 shows that H2 was proven. It showed that the social media exposure had a significant effect to the knowledge with coefficient of 0.358. The T-Statistic value was 6.096 and P-Values was lower than 0.05, i.e. 0.000. The coefficient value was positive, which could be interpreted that the social media exposure variable positively influenced the knowledge variable. On the other hand, it can be said that the better the social media exposure, the higher the knowledge is. In turn, the lower the social media exposure, the lower the knowledge level is.

Instead, the test of hypothesis three (H3) was not proven. The social media exposure did not have a significant effect to the attitude towards HIV, which was proven by the T-Statistic value of 0.115 and P-Values of 0.908 (significance is

Table 9 Measurement Results of the Path Coefficient Significance (Direct Effects)

Variable	Path Coefficient	T Statistics	P Values	Interpretation
PM →KN	0.358	6.096	0.000	Positive; Significant
PM → AT	-0.004	0.115	0.908	Not Significant
PM → PT	-0.062	1.238	0.216	Not Significant
KN → AT	0.703	18.747	0.000	Positive; Significant
KN → PT	0.363	5.067	0.000	Positive; Significant
AT → PT	0.260	4.708	0.000	Positive; Significant

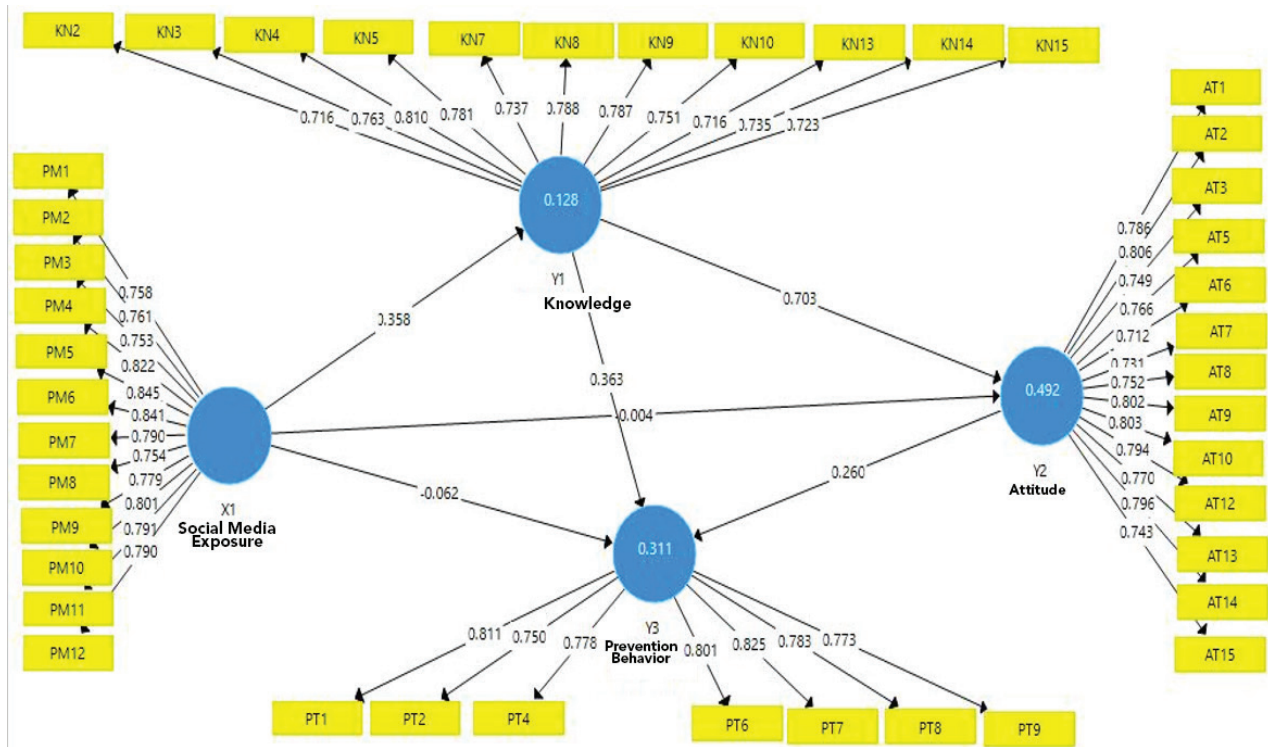


Figure 1 Path Diagram following the Measurement Model Evaluation

higher than 0.05). It meant that the level of social media exposure did not affect the level of an individual's attitude towards HIV.

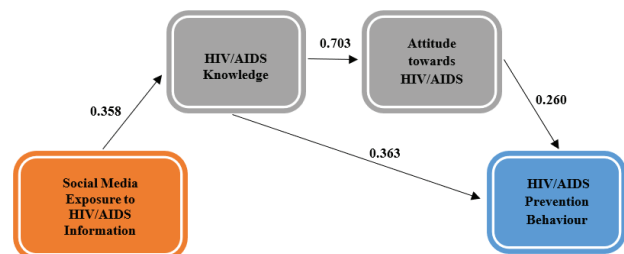
The fourth hypotheses (H4) which predicted that the knowledge significantly affected the attitude towards HIV was proven with coefficient of 0.703. The T-Statistic value was 18.747 and P-Value was 0.000 (significance was lower than 0.05). The coefficient value was positive, which could be interpreted that the knowledge variable had a positive effect on the variable of attitude towards HIV. On the other words, the more the knowledge, the better the attitude towards HIV is. Instead, the less the knowledge, the lower the attitude towards HIV is.

The test of hypotheses as found in table 9 showed that H5 was proven. It showed that the knowledge significantly affected the prevention behaviour with coefficient of 0.363. The T-Statistic Value was 5.067 and P-Values were 0.000 (significance was lower than 0.05). The coefficient value was positive which could be interpreted that the knowledge variable had a positive effect on the prevention behaviour variable. On the other hand, the more the knowledge, the higher the prevention behaviour is or instead, the less the knowledge, the lower the prevention behaviour is.

The sixth hypothesis (H6) which predicted a significant influence of the attitude towards HIV to the prevention behaviour was proven with the coefficient of 0.260. The T-Statistic Value was 4.708 and P-Values were 0.000 (significance was lower than 0.05). The coefficient value was positive, which could be construed that the variable of attitude towards HIV had a positive effect to the prevention behaviour variable. On the other

words, the better the attitude towards HIV, the higher the prevention behaviour is. Instead, the lower the attitude towards HIV, the lower the prevention behaviour is.

Figure 2 Research Results Model



Determinant coefficient measurement

The determinant coefficient (f^2) measurement is the main measurement in evaluating the structural or inner model. The determinant coefficient was applied to measure variances of the exogenous variable (which affected) in the research model. Hair et al. (2011) divided the f^2 results interpretation into three parts, i.e. higher than 0.35 categorized as high; 0.15 categorized as medium; and <0.02 categorized as low.

The result of the social media exposure influence to the knowledge was 0.147. Therefore, f^2 was included in the medium category. The social media exposure influence to the attitude, i.e. 0,000, had f^2 which was included in the low category, and the social media exposure influence to the attitude had f^2 which was included in the low

category. The result of the influence of the knowledge to the attitude was 0.847. Hence, it had f^2 which was high category. Then, the influence of the knowledge to the behaviour was 0.090, so it had f^2 which was included in the medium category. The result of the influence of the attitude to the behaviour was 0.050. Hence, it had f^2 which was included in the medium category.

Discussion

From the research results, it was found that the social media exposure did not significantly affect the HIV/AIDS prevention behaviour. It showed that the social media exposure level did not affect the level of an individual's HIV prevention behaviour. This finding is similar to the previous studies which found that there was no relationship between the media exposure and safe behaviour against HIV/AIDS risk (Hamid et al., 2020). According to Hamid (2020), there must be an intermediary and moderation from other variables. Therefore, the social media exposure may affect the HIV/AIDS prevention behaviour. There are several studies which discussed whether the media exposure had a direct effect to the behaviour. Scheufele (1999) expressly stated that the media exposure may not directly affect people's behaviour; the media exposure only reinforces an individual's perception. It is also in line with the Media Limited Effects theory which stated that the effect of the media does not always directly affect the individual's behaviour (Folarin, 2006).

This analysis result showed that the social media exposure significantly affected the knowledge. It can be interpreted that the social media exposure has a positive influence to the variable of knowledge. On the other words, the higher the social media exposure was, the more the knowledge is or the lower the social media exposure, the less the knowledge is. This research result supports previous studies which stated that there was a positive influence between the social media exposure and HIV/AIDS knowledge (Hamid et al., 2020; Danielson et al., 2015; Lelutiu-Weinberger et al., 2014). According to Amichai-Hamburger (2013), one of the benefits of the educational intervention via the social media is high reachability for time and place. The public can easily access information whenever and wherever they are (Amichai-Hamburger, 2013). The information received by the public through their social media then affects the public's cognitive development. Thus, knowledge on the HIV/AIDS is formed (Budiman et al., 2013).

On the contrary, the data analysis results showed that the social media exposure did not significantly affect the attitude towards HIV. It states that the level of the social media exposure does not affect the level of an individual's attitude towards HIV. Based on the Hierarchy of Effects theory, the social media exposure positively affects the belief and perception (Kite et al., 2018a; Russell-Bennett et al., 2016; Bauman

et al., 2008). Theoretically, the media exposure ought to lead to an individual's attitude change. This research on Bongas youngsters is not corresponding to the previous research results (Han-an, 2009; Kite et al, 2018b), which stated that the high exposure to HIV/AIDS information from the social media would affect the attitude towards HIV/AIDS.

These research results showed that the knowledge significantly affected the attitude towards HIV. It means the knowledge has a positive influence to the attitude towards HIV or it can be said that the more the knowledge, the attitude towards HIV will be better. Instead, the less the knowledge, the attitude towards HIV will be lower. This research is corresponding to the Notoatmodjo's opinion (2007), who stated that an individual with good (supportive) attitude usually have good knowledge. In the meantime, an individual with bad (non-supportive) attitude usually does not have sufficient knowledge.

Findings of this research also showed that the exposure to HIV/AIDS information delivered through the social media is significantly related to the increased HIV knowledge, which later affects the attitude and behaviour. It highlights an important role of embedding information related to the HIV/AIDS prevention on the social media in order to improve the adolescents' knowledge. Then, it will finally develop the HIV/AIDS prevention behaviour. This research is corresponding to the conclusion of Li et al. (2009), who stated that campaign programmes through more comprehensive and multi-faceted media can be highly effective in affecting the knowledge and attitude towards HIV, especially within the environment which has low knowledge on HIV.

The data analysis showed that the knowledge significantly affected the behaviour. It can be construed that the knowledge has positive influence to the prevention behaviour or on the other words, the better the knowledge the higher the prevention behaviour will be. On the contrary, the lower the knowledge the lower the prevention behaviour will be. This research result is corresponding to Notoatmodjo (2003) who explained that domains of knowledge consist of several stages, i.e. starting from awareness and knowledge to finally real practice. This is supported by the research of Durojaye (2011) in Yuliantini (2012) which explained when an individual has good knowledge on HIV/AIDS, such individual will have a perception that HIV/AIDS is something dangerous which needs to be prevented.

This research result showed that the knowledge had a positive and significant relationship with the attitude towards and prevention behaviour against HIV/AIDS, which proved the significant role of the knowledge on HIV/AIDS to the supportive attitude and positive behaviour for the HIV/AIDS prevention. It is also stated in the theory of knowledge-attitude-behaviour model (Bettinghaus, 1986) where the knowledge is highly important to affect the behavioural

change, and individuals can obtain knowledge and skill through learning. Thus, teenagers who actively receive knowledge will gradually gain belief and attitude towards healthy lifestyle and in turn, cause a healthy behaviour (Bandura et al., 1986).

The knowledge-attitude-behaviour theory is the development of the cognitive theory application in the health education. The knowledge-attitude-behaviour theory describes that the health knowledge and information is the basis to build active and correct belief and attitude towards disease. This kind of attitude is the encouraging power to modify the behaviour. This research result is corresponding to the research by Li et al. (2009). They found that the higher the individual's knowledge level on the danger of AIDS, the better her/his belief and behaviour to the HIV/AIDS prevention initiatives. This finding is also corresponding to the research by Tung et al., (2008), who stated that good education and knowledge is an effective tool to reduce discriminative attitude towards the HIV patients and improve safe behaviour against HIV/AIDS.

This research on Bongas adolescents has another factor which is highly possible to contribute to their attitude and behavioural changes. Such factor is interpersonal communication from the field officers of Kusuma Bongas. At the community level, the role of community leader has a strong influence to its members. The opinion leader will provide a very strong effect to the attitude and behaviour of teenagers in the community.

Further studies related to the HIV/AIDS campaign effectiveness in order to improve the knowledge and awareness among adolescents should consider a longitudinal research design on the subjects. The longitudinal study may collect data in long term in order to reveal the research

subjects' characteristics pattern where it can be observed prior and after they are exposed to the social media. Therefore, it is possible to know the before and after results of the social media exposure and further expose the continuous influence of messages on the social media to the knowledge, attitude, and behavioural change by comparing data in long term.

Conclusion

These research results show that most adolescents get a high exposure level to the social media. Bongas youngsters have good knowledge level on HIV/AIDS and they have supportive attitude towards the HIV/AIDS prevention. Most of Bongas adolescents have positive HIV/AIDS prevention behaviour. The social media exposure has significant influence to the HIV/AIDS knowledge. However, the social media exposure does not have significant influence to the attitude and prevention behaviour towards HIV/AIDS. The knowledge has a significant influence to the attitude and prevention behaviour towards HIV/AIDS. The attitude towards HIV/AIDS also significantly affects the prevention behaviour. The social media exposure significantly affects the prevention behaviour which is mediated by the knowledge. The social media exposure does not have a significant influence to the prevention behaviour which is mediated by the attitude. The social media exposure have a significant influence to the prevention behaviour which is mediated by the knowledge and attitude.

Statement

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